Olympic and Paralympic forecasts recognised as first class

Description

London 2012 Olympic Stadium

As the London 2012 Paralympic Games draw to a close this weekend, Met Office forecasters will be returning home knowing that the forecasts provided were first class after garnering widespread praise from event organisers and competitors.

Rod Carr, London 2012 Field of Play Manager at Weymouth and Portland, said: “The Met Office team were first class – not only in the technical accuracy of the forecasts, but also the quality of the daily briefings and their ability to engage meaningfully with the Race Management Teams.”

The Met Office provided weather forecasts to the London 2012 Olympic and Paralympic Games organisers, for the competing athletes and their coaches and also for visitors and those responsible for the massive logistical exercise of transporting and ensuring the safety of huge numbers of visitors.

Rod Carr continued: “The International Sailing Federation and several National Team Leaders were also very complimentary about the forecast service, with several saying “it was the best met service they had ever experienced at a Games”.”

Highly trained and experienced Met Office forecasters with an understanding of the sports they were forecasting for worked alongside Olympic and Paralympic Games organisers not only at Weymouth and Portland, but also at Eton Dorney and London. Our forecasters provided round-the-clock support and advice on weather conditions throughout the Games.

Cora Zillich, Venue Media Manager at the Eton Dorney rowing venue, said: “Here at Eton Dorney we have worked very closely with colleagues at the Met Office to support the race scheduling. The advice we received was absolutely spot on.”

Find out more about how the Met Office has supported the London 2012 Olympic and Paralympic Games

Related articles

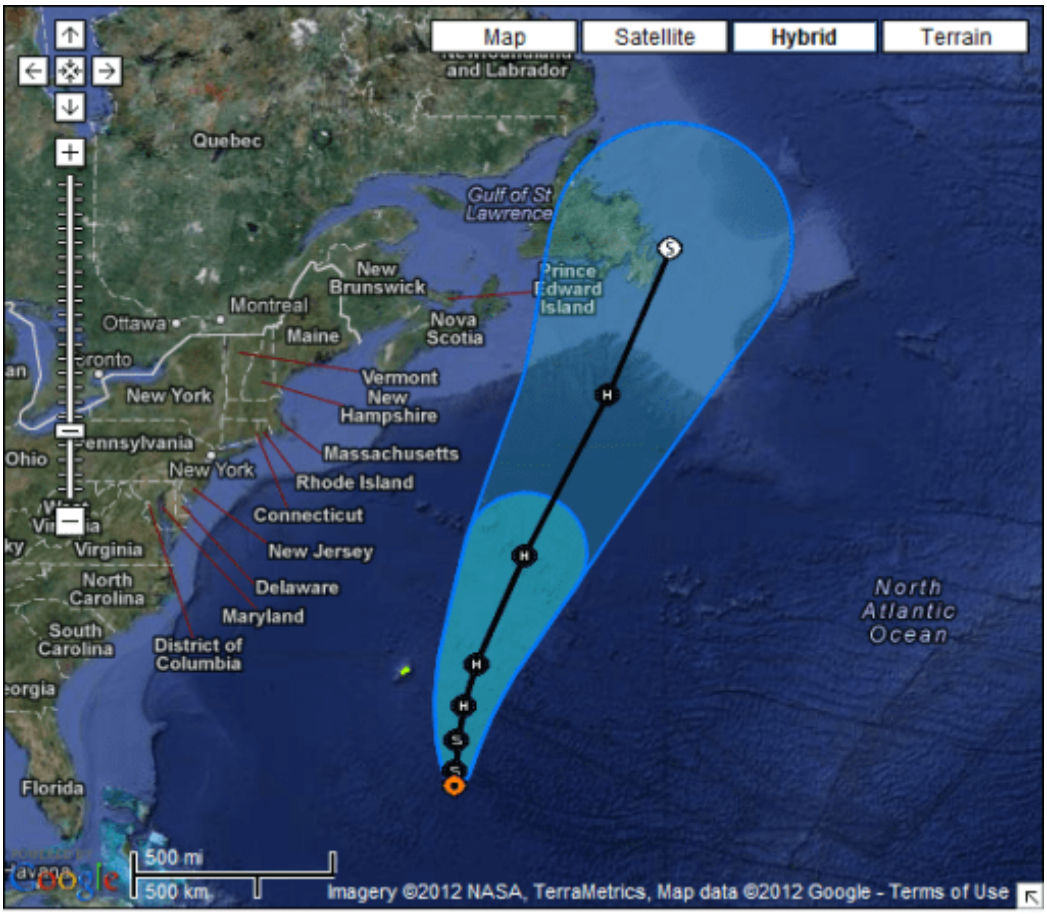
- Weather forecasts for the Olympic Games (metofficenews.wordpress.com)
- Ground-breaking forecasting keeps Olympic rowing on course (metofficenews.wordpress.com)

Date Created
September 2012

Further hurricanes expected in west Atlantic

Description

The Met Office has been closely monitoring Tropical Storm Leslie during the past week, especially because of the possibility of the impact on Bermuda. It now looks like Leslie will strengthen to Hurricane Force as it tracks 100-150 miles east of Bermuda late on Sunday. Therefore, although around 100 mm of rain and gale force winds are expected, no significant impact is expected across Bermuda, although dangerous rip currents are predicted by the US National Hurricane Centre.



This graphic shows the position and forecast track tropical storm Leslie. The orange circle indicates the current position of the center of the tropical cyclone. The black line and dots show the National Hurricane Center (NHC) forecast track of the center at the times indicated. The dot indicating the forecast center location will be black if the cyclone is forecast to be tropical and will be white with a black outline if the cyclone is forecast to be extratropical.

All available forecasts track Hurricane Leslie, and Hurricane Michael, which is situated to the east, quickly north through Monday and Tuesday.

Meanwhile, an active cold front which was responsible for the rare New York tornadoes and the high profile disruption to the US Tennis Open Championships will continue to move east from the eastern seaboard of North America.

Hurricanes Leslie and Michael and this cold front are expected to converge east of Nova Scotia and south of Newfoundland bringing the risk of 100-200 mm of rainfall to the area through Monday and Tuesday.

Probabilities of surface wind speeds exceeding 58 mph

Image not found or type unknown

Probabilities of surface wind speeds exceeding 58 mph from US National Hurricane Centre

However the main risk remains to the marine community with wind speeds in excess of 65 knots from late Monday to early Wednesday. Combined with eight metre waves and potentially a maximum wave height of up to 16 metres there will be hazardous sea conditions across the Grand Banks fishing grounds which is the same area as was impacted by the ‘Perfect Storm’ in the Autumn of 1991.

Beyond this, the remnants of this combined storm may swing east and push across the Atlantic, influencing the weather over the north east Atlantic toward the end of the week. Currently the area of low pressure is expected to push well to the north of the UK, but will potentially push a frontal south across the UK bringing rain and gale force winds to the north on Thursday and Friday. However thereis still a good deal to play for in the forecast for the end of the week and you should keep up to datewith the latest weather forecasts and warnings on the Met Office website.

Pakistan Monsoon brings exceptionally heavy rain.

Elsewhere, the Pakistan Monsoon has brought some exceptionally heavy rain to the region. Khanpur, on or close to the Indus River in Pakistan reported 147mm of rainfall in just 12 hours up to midnight last night UK time. Such heavy and intense rainfall associated with the Indian Monsoon is likely to bring significant and rapid localised flooding issues to this area in the coming days.

Across Sindh and Punjab provinces over the last 72 hours stations have been reporting varying 12-hourly totals with anything between 10 and 60 mm at times.

Forecasts indicate that rain is expected to continue for another 48-72 hours, with peak intensity over next one to two days. So the situation could worsen initially before events begin to ease off slowly during the early part of next week.

Related articles

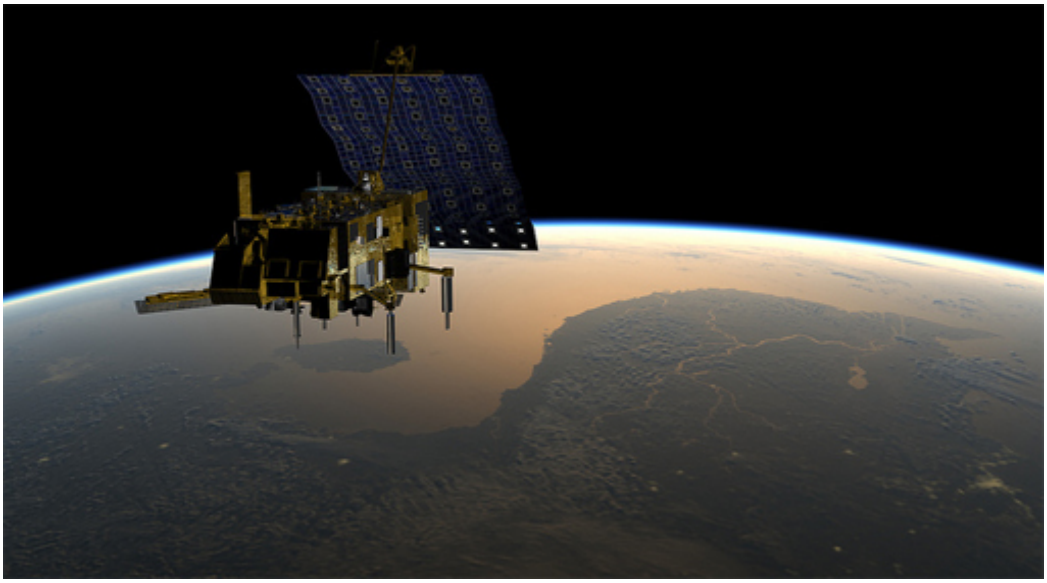
- Storm churns northward, likely to slip by Bermuda (usatoday.com)

Date Created
September 2012

Metop-B weather satellite launch Twitter interview

Description

To celebrate the impending launch of weather satellite Metop-B, we held a twitterview – an interview conducted on Twitter, with EUMETSAT. Metop-B, due for launch on 17 September 2012, is the second of the EUMETSAT Polar System (EPS) satellites, which provide data for use by meteorologists and climate scientists wordwide.



Artist's impression of a Metop satellite in polar orbit above the Earth.
Copyright 2012 EUMETSAT.

Q1: @metoffice How long has the Met Office been using EUMETSAT's satellite data? #metopb
A1: @EUMETSAT Since @EUMETSAT came into being in 1986. Before that it was @ESA from 1978. #metopb
Q2: @metoffice What type of data do you use? #metopb
A2: @EUMETSAT Meteosat imagery and data from Metop-A for #NWP assimilation and Forecasters #metopb
Q3: @metoffice Why did you start using it? #metopb
A3: @EUMETSAT #Satellites give a global view important for our global weather forecast models. #metopb
Q4: @metoffice What difference has satellite data made to your weather forecasts? #metopb
A4: @EUMETSAT Improvements in forecasts when we assimilate satellite sounder data into our NWP model. #IASI and #ATOVS have a great impact
Q5: @metoffice Are you able to see things now you couldn't before? #metopb
A5: @EUMETSAT #SEVIRI gives us valuable information on #cloud motions & for tracking desert dust & volcanic ash bit.ly/ziddNV #metopb
Q6: @metoffice What difference will the launch of #metopb make to you?
A6: @EUMETSAT Increased resilience for the next 5 years and better coverage of ocean winds.

#metopb
Q7: @metoffice Do you think the day will come when only satellite observations are needed? #metopb
A7: @EUMETSAT No. There will always be a role for conventional observations from radiosondes and weather radar. #metopb
Q8: @metoffice What is your favourite weather phenomenon which you can see in a satellite image? #metopb
A8: @EUMETSAT Clear skies over England and Tropical Cyclones elsewhere in the world. #metopb

For news and updates on Metop-B, visit the EUMETSAT Metop-B launch site.

To find out more about how the Met Office uses weather satellites, visit our satellite applications pages.

Date Created
September 2012

Win one of 50 Ordnance Survey getamap subscriptions

Description

We've teamed up with Ordnance Survey to help you make the most of the Great British autumn weather with 50 OS getamap subscriptions to give away.

Ideal for walkers, cyclists and runners, OS getamap allows you to view maps online, save and print routes, plus export to GPS devices.

Enter the competition on our Facebook page for your chance to win.

If you are heading out and about as well as a map you should also be armed with the latest weather forecast which you can get from our website or via our iPhone and Android apps or via our mobile web site.

Date Created
September 2012

How do you like your weather summary?

Description

For the last few months, we have created weather summary videos using satellite imagery and pressure charts, along with our climate summary, to explain the weather we've seen in the UK over the past month. We've experimented with two different formats for this video – using a presenter on screen to explain the weather or a voice over.

For August, forecaster Charlie Powell explained the weather off screen.

While for July, weather presenter Rob McElwee talked through the weather on screen.

Take Our Poll
Date Created
September 2012

Met Office shortlisted in Appster awards

The Met Office iPhone and Android app have been shortlisted for the Best Consumer App in the Appster awards, to be presented on Oct 2nd in London.

This continues a successful year for both the iPhone and Android apps having been shortlisted for 3 different awards. The apps have also been voted No 1 in The Independent's 10 Best Weather apps (28th June 2012) and were also listed in The Guardian's top 50 apps (Mar 2012).

Derrick Ryall, Head of Public Weather Service at the Met Office said: "We are delighted that our iPhone and Android apps have been shortlisted for Best Consumer Apps in the Appster awards. It is fantastic to know that users across the UK have found the Met Office App so useful, both for keeping up to date with the latest weather forecast and allowing them to make informed weather dependent decisions. "

Mubaloo provided the Met Office with the designs, build and tracking for both the Android and updated iPhone weather applications.

Sarah Weller, Marketing Manager at Mubaloo said: "We are absolutely thrilled that the Met Office's iPhone and Android app has been shortlisted for another award. The Met Office's decision to develop mobile apps was a very significant move and highlighted their determination to provide weather information to the public in the fastest and most convenient way possible. It is fantastic to see the Met Office's app receive such a high level of recognition across the industry."

The iPhone and Android app have been downloaded over 3 million times and are the 14th most accessed app in the UK. Features of the app include 3 hourly forecasts out to 5 days ahead, UV forecast maps and information on the likelihood of rain. In addition to the apps, we also provide Smarter Weather for other smart phones and Mobile Weather, a graphics light version designed to be accessible on all web enabled mobile phones.

Date Created
September 2012

Where’s the hottest place on Earth?

Description

For 90 years the location of the hottest recorded temperature on Earth has been firmly fixed as El Azizia in Libya – which recorded a scorching 58 °C (136.4 °F) on this very day in 1922.

It has always been a topic of hot debate, if you’ll excuse the pun, as concerns persisted over whether the record reading was accurate.

So seriously were these concerns taken that the World Meteorological Organization convened a team of international experts to investigate. Met Office scientists played a part by using what’s known as a climate reanalysis of the historic day in 1922. This used a computer model to simulate what the atmosphere was doing by using information on air pressure, sea temperatures, volcanic dust and carbon dioxide concentrations, and a host of other factors.

David Parker, a Met Office scientist involved in using the reanalysis, said: “This used no land-station air temperature data and the results were therefore independent of the El Azizia observations. We calculated air temperatures at the surface and higher up were nowhere near high enough to support the Al Azizia record.”

All the evidence was weighing up against the record, and today the WMO committee have announced their verdict – the long standing record is invalid.

They concluded it was most likely that a new and inexperienced observer improperly recorded the observation, which was in error by about seven degrees Celsius.

This means that Death Valley National Park in California, USA, now officially holds the record as the world’s hottest place with a temperature of 56.7 °C (134 °F) on 10 July 1913.

Professor Randall Cerveny, Rapporteur of Climate and Weather extremes for the WMO, said: “This investigation demonstrates that, because of continued improvements in meteorology and climatology, climate experts can now reanalyze past weather records in much more detail than ever before.

“The end result is an even better set of climate data for analysis of important global and regional questions involving climate variability and change.”

Of course, Death Valley’s record could be beaten at any time – but there will no doubt be thorough checks on any new records. And one other point to bear in mind is that there aren’t weather stations everywhere on the planet, so there may be somewhere hotter – there is just no evidence to prove it!

Date Created
September 2012

Weather satellite set for launch

Description

Metop-B, the second of the EUMETSAT Polar orbiting satellites, which provide data for use by meteorologists and climate scientists at the Met Office and around the world, will be launched today.

Metop-B is scheduled to be launched by a Soyuz rocket from Baikonur, Kazakhstan, at 17:28 BST and once in orbit will collect critical data for weather forecasters, such as the Met Office.

Using satellites to help create weather forecasts

Along with its partner satellite Metop-A, it will orbit the earth from pole to pole at an altitude of around 800 km, taking measurements including temperature, humidity and cloud properties, as well as snow and ice cover, sea surface temperature and land vegetation.

All of this data is fed into the Numerical Weather Prediction (NWP) models that produce our weather forecasts up to 10 days ahead. NWP is the basis of all modern global and regional weather forecasting, providing forecast advice, severe weather warnings and other support to public and private decision making.

Information from the Metop satellites has become indispensible to weather forecasters. A recent study by the Met Office demonstrated that Metop-A observations contribute close to 25% of the performance of numerical weather prediction (NWP) forecasts.

The data gathered by Metop have revolutionised the way the Earth's weather, climate and environment are monitored, both in the short term and in monitoring climate over decade-long data series of temperature, humidity, cloud cover and atmospheric gases such as carbon dioxide, methane and nitrogen dioxide.

David Willetts, Minister of State for Universities and Science said: "I welcome the launch of Metop B which will enable the Met Office to stay at the forefront of weather forecasting and climate monitoring. I am also very pleased that a crucial piece of onboard instrumentation, the microwave humidity sounder, was built and designed in the UK, demonstrating our leading role in this area of technology."

You can watch a live stream of the launch of Metop-B at http://www.livestream.com/metop from 15:30 BST this afternoon.

You can also read the transcript of the twitterview between the Met Office and EUMETSAT that was held last week.

Date Created
September 2012

When does Autumn start? Defining seasons

Description

Seasons are fundamental to how we understand the UK climate and the environment around us, but how do we define when they start and end?

In meteorological terms, it's fairly simple – each season is a three month period. So, Summer is June, July and August; Autumn is September, October and November, and so on.

Of course, this is fairly arbitrary, but provides a consistent basis for the Met Office, as the holder of the UK's national weather and climate records, to calculate long term averages and provide seasonal climate summaries from year to year.

Mike Kendon, of the Met Office National Climate Information Centre, said: "Defining seasons in this way means we can compare weather from one season or year to the next. It also has the advantage that each season is roughly the same length, neatly dividing the year into four quarters.

"Looking at longer timescales, our recently updated 30-year averages can show us how 'normal' seasons are changing over time, giving us clues about trends in the UK's climate."

Astronomical definitions of seasons also exist – using the Earth's position relative to the Sun as thecue for separating one season from another via equinoxes and solstices.

So the Summer begins around the Summer Solstice, when daylight hours are at their longest (around 21 June), and ends around the Equinox, when days and nights are of equal length (around 21 September, on 22 September this year). Thus astronomical Autumn begins, continuing until the Winter Solstice, when daylight hours are at their shortest (around 21 December), and so on. Astronomical seasons therefore are about three weeks behind the meteorological ones.

One thing both methods have in common is that the dates are fixed by the calendar and don't take into account what is actually happening in nature, which is after all how most of us understand the notion of seasons.

So comes the third method, which is based on phenology – the process of noting the signs of change in plant and animal behaviour.

In this distinction, Autumn may be deemed to have arrived at the first tinting of oak or beech trees, the appearance of ripe sloes or elderberries and the arrival of winter migrant birds such as redwings and fieldfares. Winter begins when native deciduous trees are bare, and so on.

For more than a decade The Woodland Trust has been using observations from thousands of members of the public to build a phenological record for the UK, called Nature's Calendar. This builds on records going back over much longer periods of time.

It aims to give a comprehensive view of how nature defines the seasons in a record which takes into account how weather in individual years or longer term changes to climate may affect natural signs from one year to the next. As such it is a more fluid, natural definition of our seasons.

Dr Kate Lewthwaite, project manager for Nature's Calendar for the Woodland Trust, said: "Taken individually the observations of what's going on in nature provide only anecdotal evidence, but taken as a whole and analysed with temperature data, they offer a powerful insight into local and national impacts of environmental and climatic change.

"For example, our data shows that, on average, native trees are producing ripe fruit 18 days earlier than a decade ago, with a potential consequence being that animals' food reserves could become depleted earlier in the winter. In contrast, leaf fall, indicating the end of the growing season, is often much later nowadays than in the past."

Ultimately, however you choose to define them, it is weather and climate which govern the perception of the passing of seasons for plants and animals, including us humans.

So, like our weather, the exact timing of when we 'feel' one season is over and a new one has begun will always be liable to change. Whereas, in contrast, the meteorological seasons always remain fixed by calendar month.

Between the Met Office's climate records and our forecasts up to a month ahead, you can stay up-to-date with what's going on with the UK's weather and climate.

Date Created

September 2012

A challenging forecast for the weekend

Description

This weekend’s weather forecast is proving more challenging than usual as we see signs of much more unsettled conditions developing for all parts of the UK over the next few days.

Much of the UK is set to have a fine and dry weekend with sunny spells, light winds and temperatures in the mid to high teens Celsius after some cold nights.

There is now increasing confidence that southern parts of the UK (roughly south of a line from south Wales to Ipswich) will see wet and windy weather on Sunday.

This wet and windy weather is not the remnants of tropical storm Nadine – this stays close to the Azores. However, we are expecting a new area of low pressure to develop to the west of Iberia on Saturday which will move northeast, pulling some warm air from Nadine with it. It is this that would bring wet and windy weather to the far south of England and Wales for Sunday and other parts of the UK next week.

The challenge for forecasters is to pinpoint how this low pressure area will move. The weather forecast models available to Met Office forecasters are giving slightly different answers to this problem. As Anthony Astbury, Met Office Deputy Chief Forecaster, explains: “One model brings the low over Brittany giving rain and gales in the south of England, while another brings the low further west, with the risk of wet and windy weather for southwestern England and south Wales.”

There is still uncertainty about how the low pressure area will develop and move on Monday, and therefore which areas of the UK will see the worst of the weather early next week.

However, this heralds a spell of very unsettled weather for the whole of the UK for next week, with all parts seeing unsettled and windy conditions with showers or longer spells of rain.

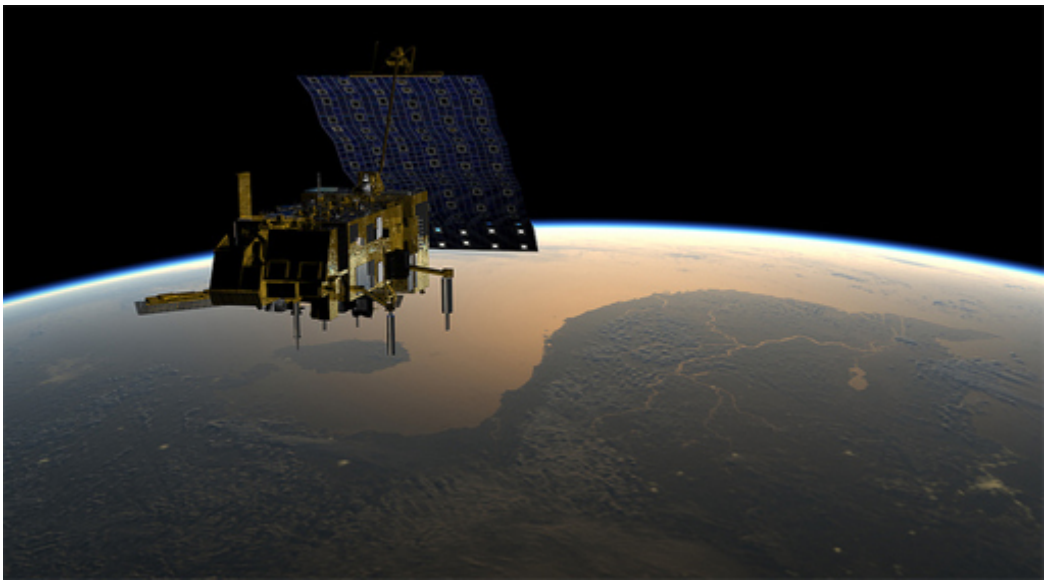
Keep up to date with the forecast and warnings for the latest information.

Date Created
September 2012

ESA hands over control of the Metop-B weather satellite to EUMETSAT

Description

Yesterday, at 18:30 local time EUMETSAT took control of Metop-B operations, following the three-day Launch and Early Orbit Phase conducted. The handover follows the launch of Metop-B on 17 September.



Artist's impression of a Metop satellite in polar orbit above the Earth. Copyright 2012 EUMETSAT.

Since the launch all of Metop-B's systems have been deployed and checked. This has included its crucial solar arrays that provide crucial power to run the satellite and its 11 scientific instruments.

Other checks have included the power, temperature, software, telecommunication links, the deployment of five payload instrument antennas and the use of one thruster burn to fine tune the orbit to bring it into 'phase' with the orbit of its sister satellite Metop-A .

Since the handover of the satellite to EUMETSAT control, work has immediately begun on the in-orbit verification of the satellite, during which all Metop-B's 11 instruments will be switched on over the next six weeks.

The European instruments on board Metop-B will be activated in the following order:

- GOME-2 ultraviolet spectrometer for ozone monitoring five days after launch
- ASCAT advanced scatterometer one week after launch
- GRAS instrument for atmospheric sounding using radio-occultation of signals from the Global Navigation Satellite System (GNSS) one week after launch
- MHS microwave humidity sounder three and a half weeks after launch

- IASI infrared atmospheric sounder six weeks after launch

Altogether, these instruments will deliver measurements of vertical profile of temperature, humidity and trace gases in the atmosphere, the wind field at the surface of the ocean, and soil moisture.

The Metop-B in-orbit check out activities will use the comprehensive EUMETSAT Polar System (EPS) ground segment. They will be coordinated by the EUMETSAT Control Centre located at EUMETSAT's headquarters in Darmstadt, Germany, with the support of ESA, the French space agency CNES, NOAA (National Oceanic and Atmospheric Administration) and industry.

About Metop

The Metop satellites are Europe's first operational meteorological satellites in polar orbit. They constitute the space segment of the EUMETSAT Polar System (EPS) delivering data for numerical weather prediction (NWP) – the basis of modern weather forecasting – and climate and environmental monitoring.

Flying at an altitude of 817 km, each Metop satellite carries the same sophisticated suite of instruments providing fine-scale global data, which can only be gathered in the low Earth orbit, such as vertical profiles of atmospheric temperature and moisture, wind speed and direction at the ocean surface, and some atmospheric trace gases.

Observations from Metop-A have significantly improved weather forecasts up to 10 days ahead. These forecasts are essential to protect life and limit damage to property, but they also benefit the weather-sensitive sectors of the European economy, especially energy, transportation, construction, agriculture and tourism.

The three Metop satellites, launched sequentially, will provide continuous data until 2020. The first satellite, Metop-A, was launched in 2006, and the third and final satellite, Metop-C, is scheduled for launch at the end of 2017.

Related articles

- Weather satellite set for launch (metofficenews.wordpress.com)
- Metop-B weather satellite launch Twitter interview (metofficenews.wordpress.com)
- European Satellite Metop-B Launched Successfully to Monitor Weather Conditions (naturenplanet.com)
- MetOp-B Launch (livescience.com)
- ESA's MetOp-B Weather Satellite Launches Successfully (news.softpedia.com)
- MetOp-B Launch (space.com)
- New European weather satellite reaches orbit (go.theregister.com)
- Metop-B satellite launches from Kazakhstan (wired.co.uk)
- Russian Soyuz Rocket Launches New European Weather Satellite (space.com)
- European weather satellite launched (msnbc.msn.com)

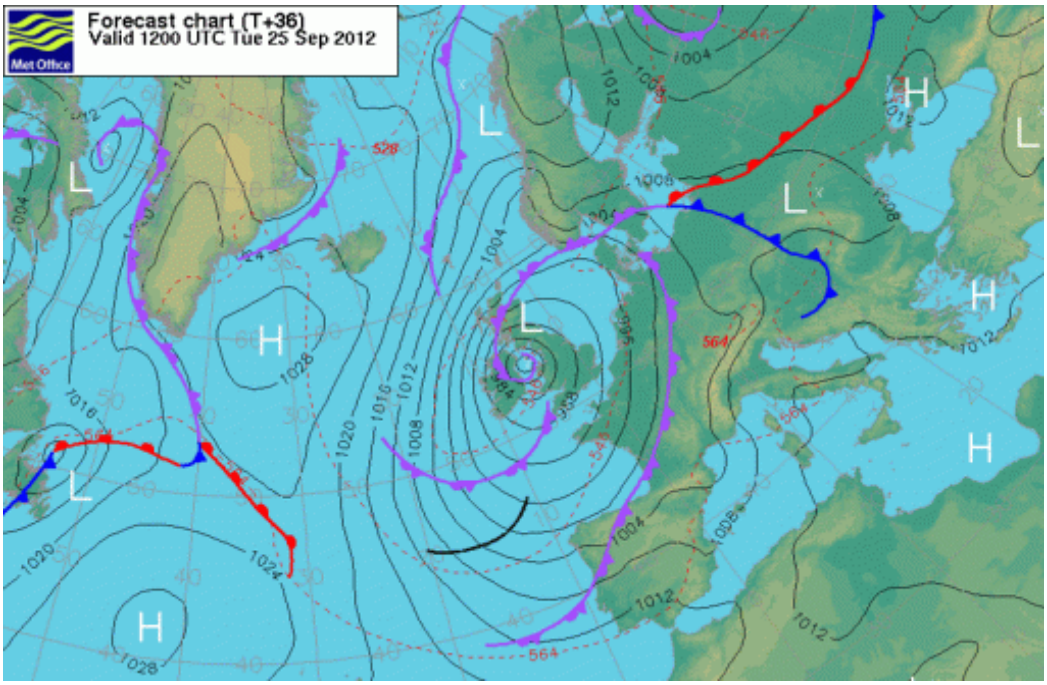
Date Created
September 2012

What’s bringing the stormy weather to the UK?

Description

The UK has seen some very wet and windy weather since the early hours of Sunday morning and that is set to continue in places for the next couple of days – but what has brought these disruptive conditions?

As is the norm, a low pressure which moved in from the Atlantic is to blame, bringing bands of heavy rain and strong winds (as you can see from the tightly packed isobars on the image below).



Forecast synoptic chart for 12:00 on Tuesday 25 September showing the low pressure over the UK.

Despite some reports to the contrary, this low is not what’s left of tropical storm Nadine, but is a completely separate entity – the remnants of Nadine are currently sitting close to the Azores far to the south of the UK.

Some warm tropical air dragged over by Nadine was sucked up into the low pressure, however, giving it some extra energy – essentially increasing its potential for strong winds and rain.

This isn’t unusual though, virtually every weather system we see will have had some input of sub-tropical air during its evolution.

There are two more notable features of this low pressure, however. Firstly, it has remained unusually active as it sits over the UK, leading to the strong winds and heavy rain.

This is due to the fact that, as the low pressure system moved north across the UK, it has also pulled in cooler polar air from the north. This cold air has come up against the warm sub-tropical air, re-invigorating the depression and allowing it to continue to deepen over the UK.

Secondly this low pressure is lingering for longer than we would often see. The reason for this is down to the position of the jet stream, a narrow band of fast moving winds high up in the atmosphere which ‘steers’ weather systems.

Normally the jet stream runs fairly directly from east to west and pushes weather systems through quite quickly. Similar to earlier this year, the steering flow of the jet stream is currently in a meandering mood – looking much like a river, curving north and south as it heads west across the Atlantic (we call this a meridional flow, with the more linear west to east flow being called a zonal flow).

When it meanders, weather systems can get stuck in the ‘peaks and troughs’ it creates – so they get stalled in one spot rather than moving on. The below picture of the jet stream as at 12:00 today shows with the steering flow of the jet over France and the UK in the resulting trough.

The weather system will move on during the day on Wednesday, but that still means the UK will have had three days of unsettled weather.

Like our weather, the jet stream can change rapidly and it’s difficult to forecast precisely what it will do for more than a few days ahead – so there’s no reason to expect it to continue to behave in this way and there’s plenty still to play for in terms of our autumn weather.

The low pressure system that is affecting the UK is unusually deep for September, with the lowest air pressure recorded so far being 973mbs. To find a similarly intense low pressure system in September you need to go back to 1981, when pressures below 970mb were reported over a period of 24 hours. Like this week’s, this low pressure system brought unsettled weather as it crossed the British Isles – starting in the Isle of Man and tracking east and then north to cover Cumbria, Northumberland, eastern Scotland, Orkney and Shetland. There have been other times when pressures as low as 970mb were recorded in some parts of the British Isles in September, such as in the Isles of Scilly in 1995 and others across the far north or west of Scotland or Northern Ireland, however none were as widespread as the low that pushed across the UK in 1981.

Date Created
September 2012

Rainfall figures: over a month’s worth of rain in two days

Description

Rainfall totals for the past few days – from 1:00 am Sunday morning to 8:00 am this morning – show some areas have already had more than twice their usual September rainfall. Ravensworth, in North Yorkshire, has seen the highest total, with 107.8 mm falling, over 200 % of its average September rainfall.

The rainfall has been widespread, with many areas across the United Kingdom receiving large totals. Killylane, in Antrim Northern Ireland saw 98.2 mm, and high totals were also recorded in the south-west, with 72.4 mm in Filton and 65.2 mm at Dunkeswell Aerodrome.

Site Name	Area	Precipitation (mm)
Ravensworth	North Yorkshire	107.8
Killylane	Antrim	98.2
Stormont Castle	Down	87
Altnahinch Filters	Antrim	83
Rhyl No 2	Clwyd	75.8
Levens Hall	Cumbria	73.2
Durham	Durham	73.2
Leeming	North Yorkshire	72.8
Shap	Cumbria	72.4
Filton	Avon	72.2
Pennerley	Shropshire	71.4
Pateley Bridge, Ravens Nest	North Yorkshire	71.2
Crosby	Merseyside	68.6
Shawbury	Shropshire	65.8
Hereford, Credenhill	Hereford & Worcester	65.6
Albemarle	Northumberland	65.6
Dunkeswell Aerodrome	Devon	65.2
Bingley, No 2	West Yorkshire	64.4
Liscombe	Somerset	62.4
Blencathra	Cumbria	62.2

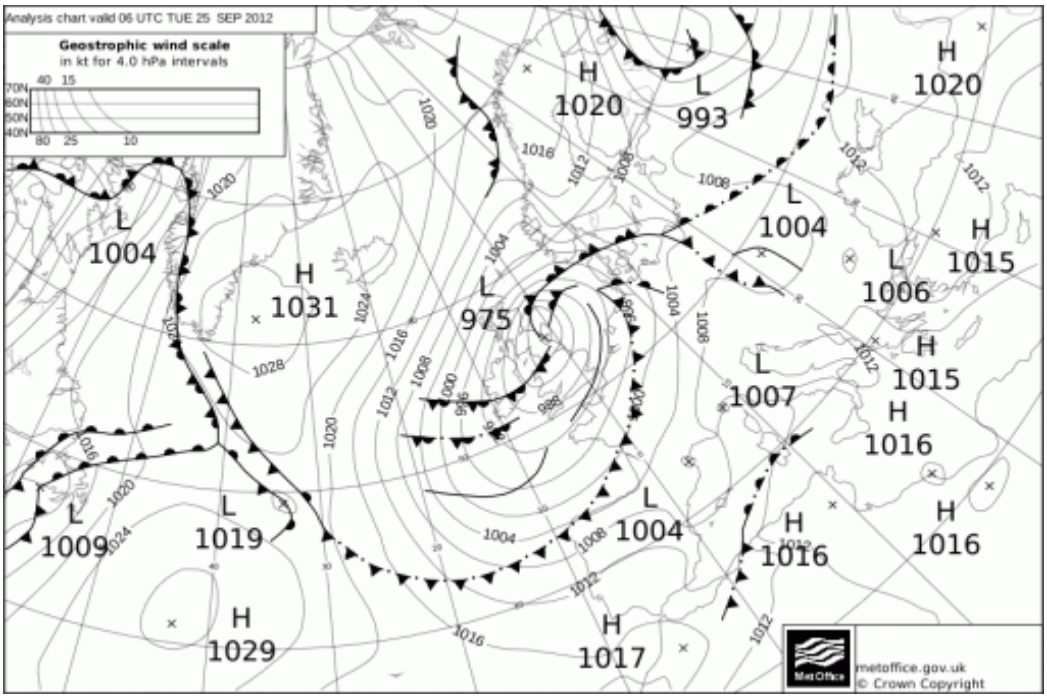
Further heavy rainfall is expected in some areas. Keep up to date with your local forecasts and weather warnings, plus flood alerts from the Environment Agency.

Date Created
September 2012

Storm caused by most intense low to cross UK in September in 30 years

Description

The low pressure system that has brought heavy rain, strong winds and flooding to the UK is the most intense to cross the UK in September for more than 30 years, with the lowest air pressure of 973mb being recorded on Tuesday morning.



Pressure chart at 6am on 25 September 2012

To find a similarly intense low pressure system that affected a wide part of the UK in September you need to go back to 1981, when pressures below 970mb were reported across central parts of the UK.

Like this week, this low pressure system brought unsettled weather as it crossed the British Isles – tracking east over the Isle of Man before heading north to Cumbria, Northumberland, eastern Scotland, Orkney and Shetland.

But what do we mean by ‘the most intense’? The intensity of a low pressure system is measured as the lowest pressure recorded at the centre of the system, as this gives an indication of how active it may be. This will relate to the rainfall amounts and wind strengths associated with it.

However, pressure is only one indicator of how much wind and rain there will be, so it is possible that other systems have resulted in stronger winds or heavier rain in some places than we have seen over the last few days.

Although the storm we have seen this week is certainly unusual in that it crossed central parts of the

UK, some parts of the UK have seen pressure systems of this kind of intensity many times before at this time of year. In fact, Met Office records show some 31 occurrences of pressure below 975mb being observed in the UK in September, but the vast majority of these were confined to north and west Scotland, Northern Ireland or the far west of England.

For example a deep low affected the northwest of Scotland with pressure as low as 972mb as recently as 12 September 2011, whilst the Isles of Scilly and part of Cornwall saw pressure as low as 966mb on 7 September 1995. So, with regard to the system which has recently affected the UK, the key to what makes it remarkable is that it has tracked over a wide area of the UK rather than those areas which are more used to storms of this intensity.

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